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Ag & A
Agr. Econ. Rep. #93

FARMERS and THEIR DEBTS

**.....The role of credit in
the farm economy**

UNITED STATES DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

Washington, D. C.

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PREFACE

Tabulation of farm credit data from the 1960 Census Sample Survey of Agriculture by the Division of Data Processing, Board of Governors of the Federal Reserve System, was not completed until 1964. Although the data are for 1960 the comparisons made and the relationships discovered in the ensuing analysis are still valid.

All terminology in this report is that of the 1960 Sample Survey of Agriculture (vol. V, pt. 5, Special Reports, U. S. Census of Agriculture, U. S. Bureau of the Census, Washington, D. C., 1962) and Farm Debt--Data From the 1960 Sample Survey of Agriculture (Board of Governors of the Federal Reserve System, 1964). The term economic class as applied to commercial farms is defined as:

<u>Economic class of farm</u>	<u>Gross value of all farm products sold (dollars)</u>
I-----	40, 000 and over
II -----	20, 000-39, 999
III-----	10, 000-19, 999
IV-----	5, 000-9, 999
V -----	2, 500-4, 999
VI -----	<u>1</u> /50-2, 499

1/ With minor exceptions.

Among those who contributed to the overall planning of this report were Philip T. Allen, Economic Research Service, USDA; Ray Hurley, U. S. Bureau of the Census; Martin Planting, Farm Credit Administration; Emanuel Melichar, Board of Governors of the Federal Reserve System; and Philip S. Brown, Farmers Home Administration.

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SUMMARY AND CONCLUSIONS

The first nationwide survey of virtually all kinds of farm debt showed that indebted farmers generally has used credit (and leases) to enlarge their operations and incomes. They apparently were more energetic and aggressive, more willing to take risks, and less willing to work with only the assets they owned outright, than were debt-free farmers.

Farmers conducting large operations, owning land of high value, and earning large incomes had, on the average, much greater debt at the end of 1960 than those with small operations, landownership, and incomes. Among commercial farmers, the average size of debt rose as income, landownership, and size of operations increased.

However, the average size of farmers' debts was more consistently related to the value of the land and buildings they owned or operated than to their incomes. It appears that credit has been based more on the value of the properties owned or operated by farmers than on their earning capacity.

Within each broad class, some farmers had debts and others did not. Regardless of whether farmers were classified by age, years on the farm, tenure, or type of farm operated, indebted farmers conducted larger-scale operations than most of the debt-free farmers. Equities of the indebted farmers were smaller, but they owned land and buildings of greater value and they leased more land. Also they sold products of greater value, earned more net cash income from farming, and had larger off-farm incomes than the debt-free farmers.

Notwithstanding the large amount of credit used by farmers, only about 10 to 15 percent of the farmers appeared heavily indebted in relation to their landownership or incomes in 1960. An additional 20 to 25 percent of the farmers had moderately large debts.

The debt-repayment record of farmers was excellent in 1960, and according to current reports of lending agencies, has remained generally excellent to the present time, even though farm debt has increased nearly 60 percent since the end of 1960. Apparently all but a few of the more heavily indebted farmers have been able to meet their debt obligations.

It appears that farm debt could rise considerably above present levels without endangering the solvency of our agriculture, if future borrowing is done by farmers who are not already heavily indebted, if farmers continue to make constructive use of credit, and if farmers and lenders continue to exercise the restraints they have in the past.

This appraisal is subject to the proviso that farm income can be held near levels of the last several years and that farmers can continue to supplement their farm incomes with income from nonfarm sources. The difficulties many farmers would experience in meeting their debts and providing for their families if their incomes should drop sharply make it imperative to keep the economy growing and to maintain acceptable levels of farm income.

FARMERS AND THEIR DEBTS
The Role of Credit in the Farm Economy

by

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INTRODUCTION

This report describes the debt situations of major groups of farmers at the end of 1960 and examines the role of credit, as reflected by debt, in the farm economy. Debt situations are described by showing the relationships between debts and factors such as income, landownership, and size of operations. The major purposes of the analysis are to throw light on the financial situations of farmers in various sectors of agriculture, and to determine the part played by credit in helping farmers to develop economic-size farm units and to build up their incomes and equities.

The data upon which this report is based were supplied by about 11,000 farm operators who were included in the 1960 Sample Survey of Agriculture conducted by the Bureau of the Census. This survey was the first nationwide survey of virtually all kinds of farm debt in the United States (Alaska and Hawaii were not included).

Most of the analysis concerns commercial farmers--farmers whose annual sales of farm products are \$2,500 or more, plus most of those with smaller sales whose principal source of income is farming. In general, these are the people whose fortunes are tied most closely to agriculture. However, some data are presented for noncommercial farmers (who sell less than \$2,500 a year, and whose principal source of income is off-farm) mainly to show how their situations differ from those of commercial farmers.

Although additional information was collected from landlords of the operators surveyed, landlords and their debts are not discussed in this report. Many farmers rent out land, and thus are landlords as well as farm operators. The data presented for farmers' debts, incomes, and land values cover only the land they operated; they do not include the debts, incomes, or values associated with land rented to others. No information was obtained on interest rates, delinquencies and repayments, or term of loan.

^{1/} Retired December 1965.

When expanded into national totals, the combined debts reported by the sample operators and landlords appeared to account for about 80 percent of all farm debt outstanding at the end of 1960, 62 percent of the non-real-estate debt, and 98 percent of the real-estate debt. 2/

The expanded survey data on farmers' gross and net cash incomes from the sale of farm products also fell below comparable estimates in the Farm Income Situation series published by the U. S. Department of Agriculture. These items appear to be understated by about one-sixth and one-third, respectively. 3/

Although there are no absolute standards against which the survey data may be measured, the probability that farmers' debts and incomes are substantially understated had to be considered in interpreting the survey data. However, I believe the data can safely be used to compare the situations of major groups of farmers.

DISTRIBUTION OF OPERATOR DEBT

A first step in analyzing the data was to see how operators' debt at the end of 1960 was distributed among major groups of farmers. For this purpose, farmers were classified in two ways: (1) according to the characteristics of the farms they operated, such as economic class, type, and size; and (2) according to characteristics of the operator, such as age, years on the farm, and net cash income from sales of farm products.

Each of these classes included debt-free as well as indebted farmers. At this stage, the purpose was to see which broad groups of farmers used the most credit (as reflected by debt) and how the credit used by each class was related to farm income of the class and the value of the land and buildings owned or operated. For this purpose all farmers in the sample were included, although many in each class reported no debts.

Figure 1 shows that some groups of farmers were using much more credit than others at the end of 1960. For example, operators of farms in economic classes I, II, and III owed more money than operators of farms in economic classes IV, V, and VI. Operators of livestock farms used a great deal more credit than operators of cotton and tobacco farms. Farmers between 35 and 55 years old used much more credit than farmers who were 65 or older. Farmers with large operations used credit more frequently and to a greater extent than operators whose farms consisted of less than 100 acres. Because there were so many operators whose net cash incomes from sale of farm products were \$1,000 to \$3,000, the class as a whole had a

2/ No fully satisfactory estimates of all farm debt exist. The comparison used here is with an estimate of farm debt which was based upon other sources of data on farm debt as well as the survey data. Garlock, Fred L., and Allen, Philip T. U. S. Dept. Agr., Econ. Res. Serv., ERS-167, June 1964.

3/ Expanded data on the cash operating expenses of farmers agree closely with data used in the Farm Income Situation series of the Department. Also, expanded data on the value of the land and buildings operated by farmers agree closely with the value of this item used by the Department--but this agreement would be expected, because the Department's estimates are based on benchmark census data.

large share of credit. The amounts of credit used by different groups usually showed little relationship to the numbers of operators in the group. Operators of economic classes I, II, and III farms were far fewer, but they used much more credit than operators of classes IV, V, and VI farms (fig. 2). The amounts of credit used by operators of the various economic classes of farms were related roughly to the value of the land and buildings they operated and to their net cash incomes from farming. Similar relationships were found when farm operators were classified in other ways.

This suggests that, in general, debts were distributed among the various groups of farmers in accordance with their ability to bear and pay debts. It may also have meant that the ability of the various groups to enlarge their operations, their ownership of land, and their earning power was associated with the amount of credit they used.

Nevertheless, the debts of some groups of farmers were disproportionately large or small in relation to the size of their operations, landownership, and earning power. For example, the debts of noncommercial farmers were disproportionately large in relation to their incomes from farming, but disproportionately small in relationship to their ownership of farmland and buildings. And young farmers had larger debts than older farmers, relative to the size of their operations, to their ownership of farmland and buildings, and to their net cash farm income. Reasons for some of the differences will be explained as the data are examined in more detail.

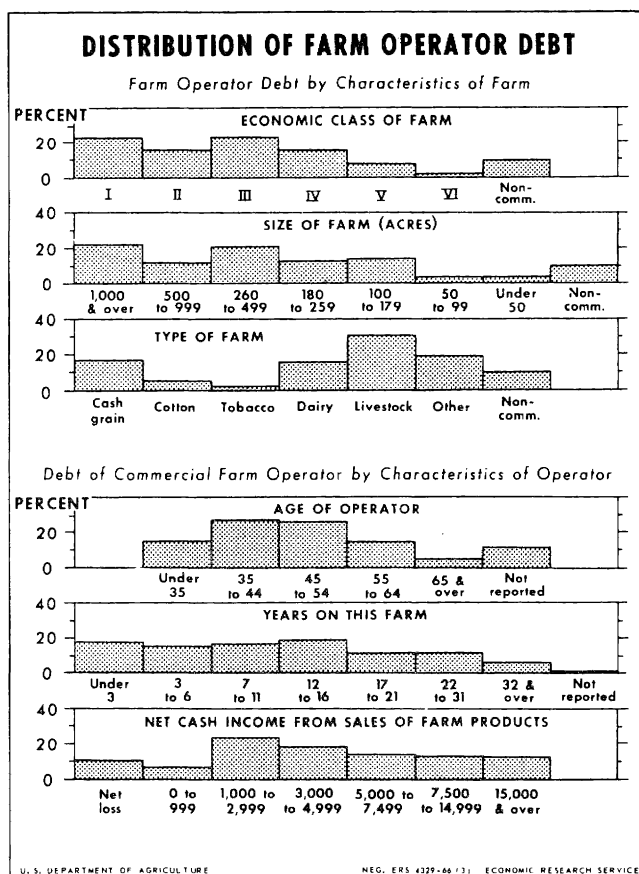


Figure 1

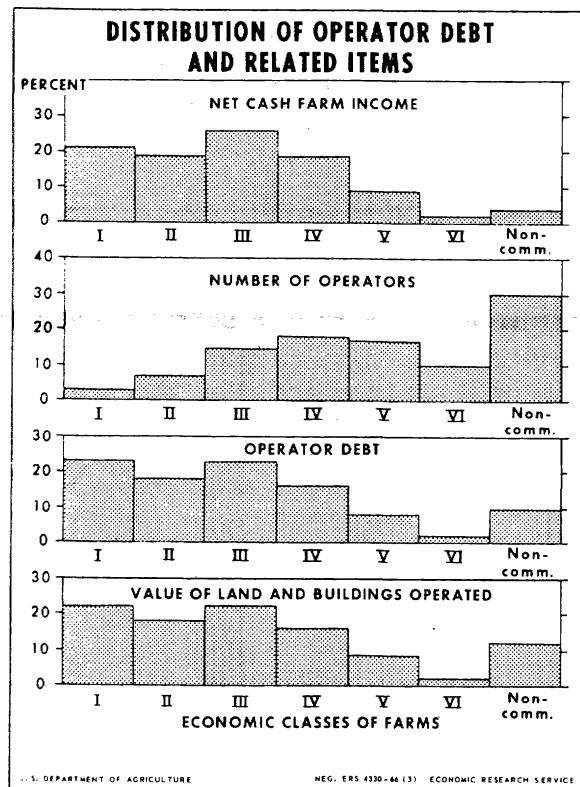


Figure 2

FARM DEBTS, SIZE OF OPERATIONS, AND EARNINGS

The relationships between the debts, operations, and incomes of major groups of farmers are shown in table 1. In this table two commonly accepted measures of farm size are used: Acreage of the farm, and the economic classification which is based on the value of farm products sold from the farm. A classification of farmers according to their 1960 net cash income from farming is added. In a sense, this also is a classification by size of operation, as net cash farm income generally increases with increases in the size of operations.

However size of operations was measured, average debts of farmers conducting the largest operations were much greater than those of any other group, and, for commercial farmers, the average amount of debt decreased as size of operations became smaller. Similar gradations occurred in the average value of the land and buildings operated by these farmers, in the average value of the land and buildings they owned, and in their average gross and net cash incomes from farming. There was even a tendency for off-farm income to vary in the same way.^{4/} On the average,

^{4/} Off-farm income includes all income received by the farm operator and members of his family from sources other than the farm operated: From businesses or professions, roomers or boarders, rent, interest, dividends, insurance, pensions, and Federal payments of all kinds, such as social security, old-age assistance, and payments under the Soil Bank Program.

the amount of credit used by various groups of farmers was closely related to the size of the operations they conducted and to the property and income bases for credit that they possessed.

Noncommercial operators had farms of somewhat greater average value than the smallest commercial farm, but produced commodities of less value and, on the average, realized little net cash income from their farming operations. However, their average incomes from off-farm sources were greater than those of any of the groups of commercial farmers except those whose net cash incomes from sales of farm products were \$15,000 or more. Their average total cash income was higher than that of the smaller commercial farmers.

Commercial farmers who suffered an operating loss in 1960 contrast with other groups of commercial farmers. On the average, the farms they operated had relatively high value, but their sales of farm products were low in relation to this value and they had relatively large incomes from off-farm sources. These characteristics suggest that they may have been engaged in "hobby farming" or farming for other than profit-making purposes. However, half of the commercial farmers who took a loss had off-farm incomes of less than \$1,000 in 1960, and only about a fifth of them had off-farm incomes of \$5,000 or more (table 2). Apparently most of these farmers were engaged in farming to make a living.

The extent to which commercial farmers and their immediate families had off-farm incomes was unexpected, as off-farm income often is thought of chiefly as an element of part-time noncommercial farming. But the data show that 70 percent of the commercial farm families had off-farm incomes and that 10 percent had off-farm incomes of \$5,000 or more. They show also that off-farm income was not concentrated among commercial farmers in either high or low farm-income brackets but was widely distributed among farmers in all farm-income brackets.

The large average amount of off-farm incomes shown in table 1 for the farmers whose net cash income from sales of farm products was \$15,000 or more resulted from the exceptionally large number of those farmers (23 percent) who had off-farm incomes of \$5,000 or more. This group of larger operators also included an exceptionally large number (40 percent) who had no off-farm incomes.

Debts of the large and medium-size farmers tended to be somewhat higher than those of small farmers in relation to the value of the land and buildings they operated and to the value of the land and buildings they owned (table 3). Perhaps this was because larger percentages of the operators of large- and medium-size farms used credit. However, this tendency toward higher debt-to-value ratios for the operators of large- and medium-size farms was not very clearly marked or consistent. More significant is the fact that the debt-to-value ratio for all groups of commercial farmers shown in table 3 fell within relatively narrow and relatively low ranges--from 11 percent to 16 percent of the value of the land and buildings operated, and from 15 percent to 28 percent of the value of the land and buildings owned.

Much more consistent relationships were found when debt was related to income; but the relationships differed when size of operations was measured in different ways. For example, when acreage was used to measure the size of operations, the debt-income ratios of commercial farmers rose with a high degree of consistency as size

of operations increased. In contrast, when size of operation was measured by net cash farm income of the operator, the debt-income ratios became progressively lower as size of operation increased. And when size of operation was measured by gross sales of products from the farm (economic class, as shown in preface) a combination of these relationships appeared--as size of operation increased, the ratio of debt to gross cash farm income declined, but the ratio of debt to net cash farm income rose.

These differing relationships between incomes, property values, and debts show that the relationships depend entirely on how the farms are selected and classified.^{5/} But their chief significance from the standpoint of this report is in showing that debts of about the same proportion of the value of land and buildings owned or operated by farmers may vary widely as proportions of the gross or the net cash farm incomes of farmers. That is to say, a loan based on the size and value of a farm, or even on gross income from the farm, may in one case be large and in another case small in relation to the borrower's net cash farm income.

It appears from the data in table 3 that debts of the various classes of farmers at the end of 1960 were much more uniform in relation to the value of the land and buildings they owned or operated than in relation to their farm incomes, gross or net. This probably means that credit had been based more on the value of the land and buildings owned or operated than on the earning capacity of farmers.

Such a policy would not necessarily be unreasonable from the standpoint of lenders. Much of the farm debt was long-term and lenders could not be certain when they extended credit that the original borrower would remain on the farm. In such circumstances it would be natural to adapt long-term loans to the earning capacity of the general run of farmers (and to the value of the land and buildings offered as security) rather than to the earning capacities of the particular farm borrowers who obtained the loans. The policy would be less reasonable when applied to short-term credit, but even with this type of credit, lenders probably find it much easier to appraise the average ability of farmers to repay debts than the repayment ability of exceptionally capable farmers.^{6/}

^{5/} An explanation of reasons for the differing debt-to-income relationships is given in the appendix.

^{6/} Earnings were not always synonymous with debt-paying capacity. Because a smaller part of their income ordinarily was used for living expenses, the larger farmers usually were able to carry more debt relative to net income than the smaller farmers. In general, farmers' debts appeared to be in a logical relation to their debt-paying capacity because, when farmers were classified according to the acreage or economic class of their farms, on the average the larger farmers had the highest debt-to-income ratios. But when farmers were classified by the amounts of their net cash farm incomes, farmers with the larger incomes had lower debt-to-income ratios than farmers with small incomes.

OTHER FACTORS RELATED TO SIZE OF DEBT

Several factors other than size of operations were related to the amount of farmers' debts. Among these factors were the age and tenure of the farmer and the length of time he had operated the farm he operated in 1960. The younger farmers had larger debts than the older farmers, both absolutely and in relation to their income and to the value of the land and buildings they owned or operated (tables 4 and 5). Similar relationships appeared when farmers were grouped by the length of time they had occupied the farm operated, the most recent arrivals having the heavier debts. Part-owners had larger debts than full-owners, and full-owners larger debts than tenants.

These factors, together with size of operations, partly determined the debt positions of farmers engaged in the various types of farming. Of the six types of farms for which data are shown, cash grain, livestock other than dairy, and "other" farms were the largest as measured by value of land and buildings operated, value of land and buildings owned by the operators, and net cash income of the operator. Operators of these types of farms had the largest debts and their debts were high in relation to their incomes and the value of the land and buildings they owned and operated.

Cotton and tobacco farmers had the smallest debts. Their debt ratios also were relatively low. Since these types of farming are highly seasonal and the data on debts were obtained near the end of the year, their debts were at a seasonal low at the time the survey was made. However, the rate of tenancy was much higher on these types than on any other types of farms; also, on the average, the cotton and tobacco farms were small. These factors probably contributed to the low level of operator debt on these types of farms.

Dairy farmers had large debts despite the comparatively small average value of the land and buildings they owned and operated. In relation to land and building values, their debts were higher than those of any other group of farmers. Their debt-to-income ratios also were high. A possible explanation of their heavy debts is their low rate of tenancy--the lowest of all groups. However, dairy farmers have larger investments in livestock and machinery, relative to the value of the land and buildings they operate, than other groups of farmers. This factor creates large needs for credit on the part of dairy farmers. Their relatively stable incomes may encourage lenders to be liberal in extending credit to them.

INDEBTED AND DEBT-FREE FARMERS

Up to this point we have attempted only to show how the farm debt at the end of 1960 was distributed among broad classes of farmers, and how the debts of these classes differed in relationship to their incomes and the value of the farms they owned or operated. Within each broad class some farmers had debts and others did not. Did the indebted farmers have characteristics that distinguished them from debt-free farmers or were borrowers and nonborrowers alike except that one group used credit whereas the other did not?

This rather confused picture is clarified when the indebted and debt-free farmers are compared. Regardless of whether the farmers were classified by age, years on the farm, tenure, or type of farm they operated, the indebted farmers, on the average, conducted larger-scale operations than the debt-free farmers. The value of the land and buildings they operated was greater, they leased more land, and they owned more land (table 6). Also they sold products of greater value, earned more net cash income from farming, and had larger off-farm incomes and more net income from all sources than did the debt-free farmers (table 7).

On the average, the indebted farmers had smaller equities in their land than did the debt-free farmers, but for some groups this was not true.

Although credit was indispensable to the indebted farmers in building up and operating large farm businesses, it is questionable whether use of credit was fundamentally responsible for their larger, more profitable operations. What the data probably mean is that the farmers who used credit were more energetic and aggressive, more willing to take risks, and less willing to work only with the assets they owned outright than were the debt-free farmers. This is indicated by their more extensive use of leased land as well as by their use of credit.

These expansionist characteristics of the credit users--particularly the heavy credit users--are pointed up more sharply when farmers are classified according to the extent of their indebtedness. In table 8, owner-operators (excluding tenants) are classified according to the ratio of their major real estate debt to the value of the land and buildings they owned. "Major real estate debt" may be defined broadly as debt primarily secured by farm real estate; it does not include debt for which real estate is merely supplemental to other security.^{7/}

All three classes of farmers with major real-estate debts operated more valuable farms than did those without real-estate debts; and both the lightly and moderately indebted farmers owned more valuable farms. Despite their small equities, the most heavily indebted farmers owned farms of nearly as high value as those owned by the debt-free farmers. But the most significant point is the extent to which the indebted farmers used their equities as a fulcrum for developing larger operations than their own financial resources would support. The most heavily indebted farmers owned 3-1/2 times as much land, and operated 6 times as much land, as they could have owned or operated without borrowing and leasing. By using these methods of expanding operations, they raised their net cash farm incomes to levels approximating those of the other groups whose equities were much greater.

The more heavily indebted owner-operators farmed more intensively than the lightly indebted and debt-free operators. Figure 3 shows the incomes and expenses per \$100 of value of the land and buildings operated for farmers owning farms of varying values. For reasons not revealed by the data, the debt-free farmers in each land-ownership classification operated more intensively than did the lightly indebted farmers; but as the debt ratio increased, both expenses and gross incomes per \$100

^{7/} For a more complete definition, see Garlock and Allen, Technical Appraisal of the 1960 Sample Survey Estimates of Farm Debt, p. 10.

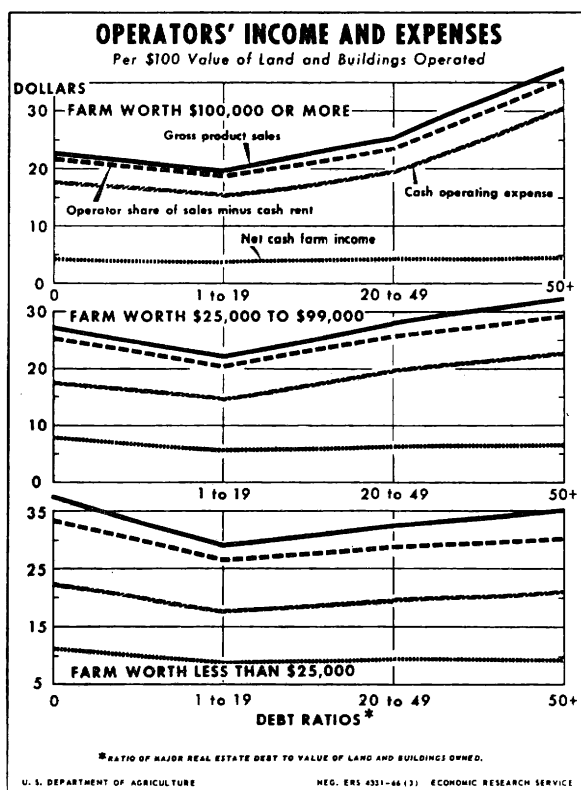


Figure 3

value of land and buildings operated increased sharply. Despite their higher interest and rental payments, the more heavily indebted farmers were able, by intensifying operations, to earn about the same net cash farm incomes per \$100 value of land and buildings operated as the debt-free and lightly indebted farmers.

To an extent, the tendencies of farmers with moderate to high debt ratios to expand their operations were related to their ages. The debt-free and lightly indebted owner-operators averaged 51 years of age in 1960. The moderately and heavily indebted farmers averaged 47 and 42 years, respectively. These groups had less money of their own than the older groups but their ambitions were no less; they used borrowed money and leased land to build up sizable operations and they farmed more intensively than the older groups did.

A picture similar in some respects--but quite different in other respects--emerged when all farmers were classified by the ratio of their total debts to their net cash farm income (table 9). In this classification, also, all groups of indebted farmers leased land of greater value and operated farms of greater value than did the debt-free farmers. Moreover, most groups of indebted farmers owned land of greater value than did the debt-free farmers. But here the similarity ends, for, in this classification, the more heavily indebted farmers had equities of about the same value, but smaller incomes, than the lightly indebted and debt-free farmers.

Another major difference appears when the income and expense of the farmers per \$100 value of land and buildings operated are plotted as shown in figure 4. In this classification, for each grouping of economic classes of farms, the more heavily

indebted farmers had somewhat larger operating expenses but lower gross and net cash operating incomes from farming than the lightly indebted and debt-free farmers.

Whichever measure of the extent of indebtedness is used--the ratio of major real-estate debt to value of land and buildings owned or the ratio of total debt to net cash farm income--farmers with the highest debt ratios owed more money than farmers with low debt ratios (table 10). Both the major real-estate debt and the non-real-estate and related debts of farmers with the highest debt ratios were larger than those of farmers with low debt ratios.

From table 10 and figure 4, though, it is clear that the debt situation of farmers with the higher debt-to-income ratios resulted not only from their large debts but also from their low returns from farming. The chances are that many of these farmers had operating losses or high debt-to-income ratios because 1960 was a poor year for them. Each year some farmers suffer temporary reverses from low prices or from drought or other natural hazards that reduce their returns from farming. Many farmers who had operating losses or high debt-to-income ratios in 1960 probably had better returns from farming and lower debt-to-income ratios in most other years.

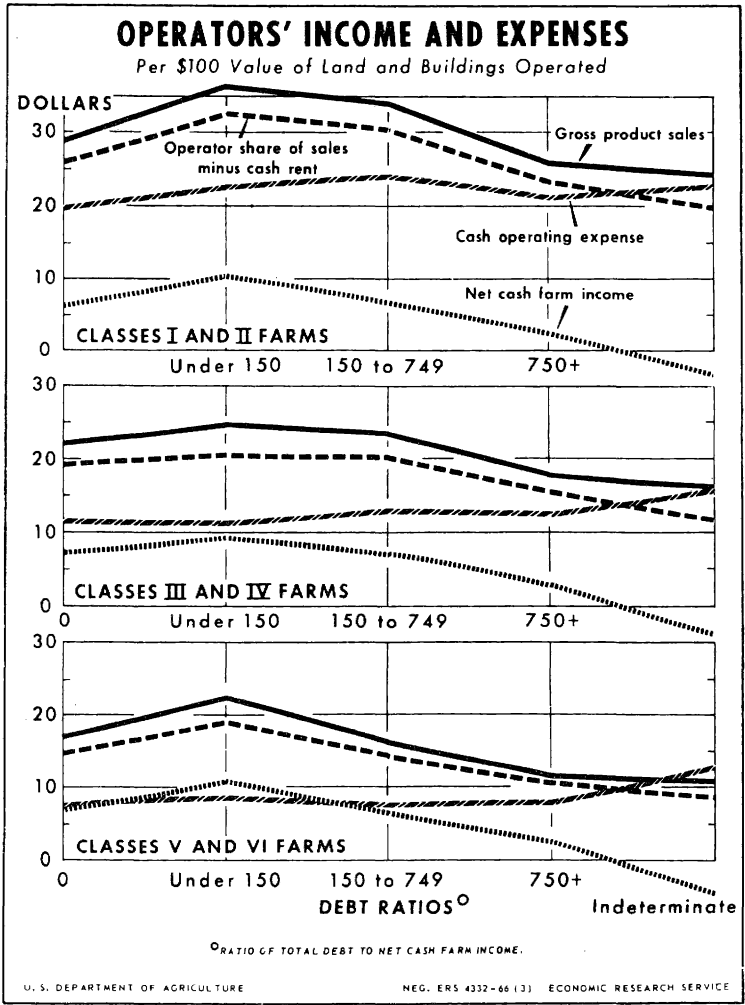


Figure 4

EXTENT AND SIGNIFICANCE OF HEAVY DEBT

Farmers as a class were lightly indebted in 1960 both in relation to the value of the land and buildings they owned and in relation to their incomes. But some farmers had relatively heavy debts. What percentages of the farmers had heavy debts, and what effect would a decline in farm incomes or land values have on the incidence of heavy farm indebtedness? To get answers to these questions, farmers and farm debt were distributed by the two measures of indebtedness used above.

The first distribution showed that 56 percent of the owner-operators had no major real-estate debt, and that only 10 percent of the owner-operators had major real-estate debts as great as 50 percent of the value of the land and buildings they owned (table 11). Owner-operators of farms valued at less than \$25,000 included larger proportions of farmers who had no major real-estate debt and, at the same time, larger proportions who were in the more heavily indebted class, than owner-operators of more valuable farms.

The second distribution indicated that 36 percent of all commercial farm operators, including tenants, had no debts of any kind, but that about 15 percent had total debts equal to or exceeding 750 percent of their net cash farm income in 1960 (table 12). Included in this 15 percent were the farmers who had operating losses in 1960.

More operators of small farms (classes V and VI) than operators of large farms were free of debt. Operators of small farms also were slightly less prone to have large debts in relation to their net cash farm incomes.

From the above data, it appears that only 10 percent of the owner-operators of commercial farms would be regarded as having heavy major real-estate debts, and only about 20 percent as having moderately large debts of this type, in relation to the value of the land and buildings they owned. Similarly, considering all farmers, including tenants, only 15 percent had total debt exceeding 750 percent, and only about 25 percent had debts ranging from 150 percent to 749 percent, of their 1960 net cash farm incomes.

These figures are significant from two standpoints. First, they indicate that only 10 to 15 percent of the farmers were heavily indebted in 1960, but that the proportion could have risen considerably if farm incomes and land values had fallen substantially after 1960. However, the proportion probably would not have risen above a third of the farmers unless the decline in farm income and land values had been disastrously great. In that event, widespread farm-debt difficulties would have been added to the many other serious problems that farmers would have faced.

Second, assuming a continuation of farm income at the 1960 level, the data indicate that a large potential existed in 1960 for increased farm borrowing on a relatively safe basis, provided the borrowing was done for constructive purposes by the many farmers who were debt-free or only lightly indebted in 1960.

The farm debt situation in 1960 reflected a greater concentration of risks for lenders than for farmers as a group. About 30 percent of the major real-estate debt of all owner-operators, and about 44 percent of the total debt of all farmers, was owed by the more heavily indebted groups (tables 13 and 14). Substantial

declines in farm incomes and land values would raise these percentages sharply. As a group, farm lenders, particularly sellers of farms on land contracts, were deeply involved with the relatively small numbers of heavily indebted farmers.

Data from lending institutions and from the USDA's series on involuntary transfers of farms indicate that, in 1960, collections of farm loans were generally excellent and delinquencies and foreclosures were few. Apparently all but a few of even the more heavily indebted farmers were able to meet their obligations at that time. According to current reports from lending institutions, the repayment record of farm loans has remained excellent to the present time, even though farm debt has increased nearly 60 percent since the end of 1960. 8/

This excellent repayment record of farmers reflects the constructive use they have made of credit in developing, and often in acquiring part or full ownership of, more efficient-size and better-equipped farming units. Although rising land values have made it easy for farmers whose debts were burdensome to sell out and liquidate their debts, the small number of foreclosures and land transfers to avoid foreclosure (only 4,000 to 5,000 per year, or less than 0.5 percent of the number of mortgaged farms) suggests that this method of debt repayment was of little significance. 9/

Viewed broadly, the sharp increase in farm debt since World War II has been one of the factors required to bring about the great changes that have occurred in our agriculture. In that period, there has been an unusually great advance in agricultural technology and in the resulting yields and outputs; a marked shift from farm tenancy to part-ownership of farms; a notable increase in the number of larger farms; and a sharp decline in the number of smaller farms.

As long as change continues to occur in agriculture at the pace of recent years, farm credit needs will remain large and farm debt will continue to rise. Most farmers who are in the process of acquiring or developing well-equipped farms of efficient size cannot save at a rate sufficient to meet their needs for additional capital.

Judging by the debt situation of farmers at the end of 1960, and their generally good repayment record since then, it appears that farm debt could rise considerably above present levels without endangering the solvency of our agriculture, provided that future borrowing is done by farmers who are not already heavily indebted, that farmers continue to make constructive use of credit, and that farmers and lenders continue to exercise the restraints they have in the past. This appraisal is also subject to the proviso that farm income can be held near levels of the last several years and that farmers continue to supplement their farm incomes with income from nonfarm sources. The difficulties many farmers would experience in meeting their debts and providing for their families if their incomes should drop sharply make it imperative to keep the economy growing and to maintain acceptable levels of farm income.

8/ Allen, Philip T., and Eitel, Van E. Quality of Farm Mortgage Loans. U. S. Dept. Agr., Econ. Res. Serv., Agr. Finance Rev., vol. 25, pp. 23-36, illus. June 1964.

9/ See page 22, Farm Real Estate Market Developments. U. S. Dept. Agr., Econ. Res. Serv., CD-67, Aug. 1965.

APPENDIX

An explanation of the differing movements of the debt-income ratios described on page 6 may be found in the earnings and expenses of the various classes of operators per \$100 value of the land and buildings they operated.

When farmers were classified by the acreage they operated, both their gross farm incomes and their operating expenses per \$100 of land value decreased as size of farm increased (table 15). Net cash farm income per \$100 of land value also decreased consistently as size of farm increased. Since debt per \$100 of land value varies little, these marked differences in gross and net farm income per \$100 of land value caused the debt-income ratios to rise with increases in the size of farm.

Average value of land and buildings per acre decreased as acreage in the farm increased. This, together with the decreasing income and expense per \$100 of land value, indicates that a classification of farms by acreage in general is a classification by intensity of operation. Usually, farms were operated with diminishing intensity as acreage in the farm increased.

But not all large farms were operated extensively or all small farms intensively. This was shown when farmers were classified by their net cash farm incomes. In this classification, also, the average acreage per farm increased consistently as size of operations increased. Both gross and net farm income and operating expenses per \$100 of land value also increased. As the average per acre value of land and buildings did not differ greatly, cash expenses and both gross and net cash farm income per acre were greater for the larger than for the smaller farms. These relationships are exactly the opposite of those found when farms were classified by acreage.

The classification of farmers by economic class of the farm they operated resembled the classification by net cash farm income of the operator in most respects. As reflected by gross farm income and expenses per \$100 of land value, operations were more intensive on farms with the largest sales of products, and the ratio of debt to gross farm income was lower for operators of class I and II farms than for operators of class V and VI farms. However, net cash farm income per \$100 of land value did not vary significantly among the various classes of farms. Since the debt-to-value ratio was somewhat higher for operators of the larger farms, the ratio of debt to net cash farm income also was higher for those operators than for operators of smaller farms.

Table 1.--All farm operators: Average debt, average value of land and buildings, and average cash income, 1960

Grouping	Operator debt	Value of land and buildings		Cash income			
		Operated:	Owned	Gross farm ^{1/}	Net farm ^{2/}	Off- farm ^{3/}	Total net
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Economic class:							
Commercial farms, class:							
I-----	37,303	266,959	163,397	87,380	14,172	3,163	17,335
II-----	13,253	101,756	51,428	21,839	6,169	2,246	8,415
III-----	8,011	56,980	29,054	11,371	3,779	1,591	5,370
IV-----	4,661	35,308	21,962	6,093	2,281	1,810	4,091
V-----	2,307	20,519	14,533	3,041	1,267	2,066	3,333
VI-----	988	9,074	6,644	1,161	564	517	1,081
Noncommercial farms-----	1,656	15,426	13,378	927	270	3,489	3,759
Size of farm operated:							
Commercial farms, acres: ^{4/}							
1,000 and more-----	26,688	206,893	132,175	38,894	8,401	3,081	11,481
500 to 999-----	11,833	96,747	49,439	19,503	4,928	2,141	7,069
260 to 499-----	7,917	60,736	28,079	12,507	3,562	1,626	5,187
180 to 259-----	6,513	42,790	23,879	9,734	2,921	1,484	4,405
100 to 179-----	4,353	31,042	20,177	7,602	2,310	1,842	4,152
50 to 99-----	2,298	20,192	14,447	5,526	1,795	1,576	3,371
Under 50-----	2,175	13,909	10,913	6,124	1,804	1,479	3,283
Net cash income from sales of farm products:							
Commercial farms, dollars: ^{4/}							
15,000 and more-----	36,590	268,669	200,180	99,545	28,670	3,992	32,661
7,500 to 14,999-----	13,733	104,001	61,768	29,575	9,958	2,688	12,646
5,000 to 7,499-----	10,199	74,050	43,876	17,214	5,965	1,527	7,492
3,000 to 4,999-----	7,151	52,427	28,770	10,922	3,797	1,567	5,364
1,000 to 2,999-----	4,325	31,423	17,369	5,708	1,829	1,542	3,371
0 to 999-----	2,341	21,323	10,965	2,977	493	1,325	1,818
Net loss-----	10,874	83,640	43,205	12,063	-3,120	3,433	313

1/ Operator's share of product sales, minus cash rent.

2/ Operator's net cash income from sales of farm products.

3/ Income of operator and family from off-farm sources.

4/ Similar data are not available for noncommercial farms.

Table 2.--All farm operators: Percentages of commercial and noncommercial farm operators having specified off-farm incomes, 1960

Grouping	Off-farm income of operator and family				
	None	\$1 to \$999	\$1,000 to \$4,999	\$5,000 and over	Total
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Commercial farms with net cash income of:					
\$15,000 and over-----	40	18	19	23	100
\$7,500 to \$14,999-----	28	25	35	12	100
\$5,000 to \$7,499-----	30	36	26	8	100
\$3,000 to \$4,999-----	28	34	29	9	100
\$1,000 to \$2,999-----	30	31	30	9	100
0 to \$999-----	34	36	22	8	100
Net loss-----	25	25	31	19	100
All commercial farms-----	30	32	28	10	100
Noncommercial farms-----	2	17	57	24	100
All farms-----	22	27	37	14	100

Table 3.--All farm operators: Ratio of debt to value of land and buildings, and to income, 1960

Grouping	Percentage of operators indebted	Operator debt as a percentage of--				
		Value of land and buildings		Cash income		
		Operated ¹	Owned	Gross farm ¹ /	Net farm ² /	Total net ³ /
	Percent	Percent	Percent	Percent	Percent	Percent
Economic class:						
Commercial farms, class:						
I-----	76	14	23	43	263	215
II-----	75	13	26	61	215	157
III-----	73	14	28	70	212	149
IV-----	66	13	21	76	204	114
V-----	55	11	16	76	182	69
VI-----	47	11	15	85	175	91
Noncommercial farms-----	46	11	12	179	613	44
Size of commercial farms, acres: ⁴						
1,000 and more-----	69	13	20	69	318	232
500 to 999-----	73	12	24	61	240	167
260 to 499-----	74	13	28	63	222	153
180 to 259-----	71	15	27	67	223	148
100 to 179-----	62	14	22	57	188	105
50 to 99-----	54	11	16	42	128	68
Under 50-----	47	16	20	36	121	66
Net cash income from sales of farm products:						
Commercial farms, dollars: ⁴						
15,000 and more-----	67	14	18	37	128	112
7,500 to 14,999-----	68	13	22	46	138	109
5,000 to 7,499-----	73	14	23	59	171	136
3,000 to 4,999-----	68	14	25	65	188	133
1,000 to 2,999-----	61	14	25	76	237	128
0 to 999-----	56	11	21	79	475	129
Net loss-----	74	13	25	90	---	---

¹/ Operator's share of sales of farm products minus cash rent.²/ Operator's net cash farm income from sales of farm products.³/ Includes income of operator and family from off-farm sources.⁴/ Similar data are not available for noncommercial farms.

Table 4.--Commercial farm operators: Average debt, average value of land and buildings, and average cash income, 1960

Characteristics of operators and types of farm	Operator's debt	Value of land and buildings		Cash income			
		Operated:	Owned	Gross farm ¹ /	Net farm ² /	Off-farm ³ /	Total net
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Age:							
Under 35-----	8,293	50,496	16,034	10,999	3,134	1,335	4,469
35 to 44-----	8,499	53,209	25,663	12,552	3,307	1,680	4,987
45 to 54-----	6,726	50,340	28,908	11,191	3,011	1,886	4,896
55 to 64-----	4,579	44,537	31,245	9,718	2,977	1,431	4,408
65 and over-----	3,378	54,552	45,647	10,722	3,286	2,361	5,647
All ages-----	6,708	50,365	29,183	11,201	3,074	1,755	4,829
Years on that farm:							
Under 3-----	8,509	44,803	18,852	9,446	2,490	1,613	4,103
3 to 6-----	7,875	47,843	21,411	10,179	2,596	1,655	4,251
7 to 11-----	7,039	50,184	24,771	11,355	2,929	2,002	4,931
12 to 16-----	6,924	51,535	27,070	11,827	3,189	1,637	4,826
17 to 21-----	6,293	49,312	34,374	11,211	3,269	1,579	4,848
22 to 31-----	5,588	54,464	39,088	11,430	3,423	1,894	5,317
32 and over-----	3,868	52,120	40,280	12,297	3,623	1,949	5,572
All periods-----	6,708	50,365	29,183	11,201	3,074	1,755	4,829
Tenure:							
Full owner-----	6,265	35,272	35,272	10,044	3,074	2,144	5,218
Part owner-----	9,478	66,157	35,948	13,493	3,633	1,780	5,413
Tenant-----	2,630	44,827	0	6,976	2,036	1,029	3,066
All tenures-----	6,708	50,365	29,183	11,201	3,074	1,755	4,829
Type of farm:							
Cash grain-----	6,899	69,658	29,350	9,119	3,371	1,974	5,345
Cotton-----	3,959	42,647	21,215	8,542	2,348	1,173	3,521
Tobacco-----	1,699	17,023	8,468	3,632	1,577	730	2,307
Dairy-----	6,692	33,770	23,199	10,703	3,034	1,407	4,441
Other livestock-----	9,283	60,734	38,103	13,514	3,508	2,099	5,608
Other-----	7,080	54,081	36,891	15,510	3,363	2,198	5,561
All types-----	6,708	50,365	29,183	11,201	3,074	1,755	4,829

¹/ Operator's share of sales minus cash rent.

²/ Net cash income of operator from sales of farm products.

³/ Income of operator and family from off-farm sources.

Table 5.--Commercial farm operators: Ratio of debt to value of land and buildings, and to income, 1960

Characteristics of operators and type of farm	Percentage of operators indebted	Operator debt as a percentage of--				
		Value of land and buildings		Cash income		
		Operated	Owned	Gross farm	Net farm	Total net
	Percent	Percent	Percent	Percent	Percent	Percent
Age:						
Under 35-----	78	16	52	75	265	186
35 to 44-----	74	16	33	68	257	170
45 to 54-----	65	13	23	60	223	137
55 to 64-----	54	10	15	47	154	104
65 and over-----	42	6	7	32	103	60
All ages-----	64	13	23	60	218	139
Years on that farm:						
Under 3-----	70	19	45	90	342	207
3 to 6-----	71	16	37	77	303	185
7 to 11-----	69	14	28	62	240	143
12 to 16-----	66	13	26	59	217	143
17 to 21-----	62	13	18	56	192	130
22 to 31-----	57	10	14	49	163	105
32 and over-----	45	7	10	31	107	69
All periods-----	64	13	23	60	218	139
Tenure:						
Full owner-----	59	18	18	62	204	120
Part owner-----	73	14	26	70	261	175
Tenant-----	61	6	1/	38	129	86
All tenures-----	64	13	23	60	218	139
Type of farm:						
Cash grain-----	67	10	24	76	205	129
Cotton-----	54	9	19	46	169	112
Tobacco-----	54	10	20	47	108	74
Dairy-----	71	20	29	63	221	151
Other livestock-----	62	15	24	69	265	166
Other-----	66	13	19	46	211	127
All types-----	64	13	23	60	218	139

1/ No farmland and buildings owned.

Table 6.--Commercial farm operators: Average equities of indebted and debt-free farmers compared with the average value of land and buildings on their farms, 1960

Characteristics of operators and type of farm	Average value of land and buildings operated by--						Average operators' equity in land and buildings owned <u>1/</u>	
	Indebted operators			Debt-free operators			Indebted operators	Debt-free operators
	Total value	Value leased by operator	Value owned by operator	Total value	Value leased by operator	Value owned by operator		
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Age:								
Under 35-----	54,085	36,985	17,100	37,843	25,566	12,278	11,282	12,278
35 to 44-----	56,858	28,993	27,865	42,703	23,380	19,322	21,308	19,322
45 to 54-----	56,366	23,686	32,681	38,880	17,146	21,734	27,053	21,734
55 to 64-----	52,166	17,121	35,045	35,658	8,836	26,823	29,844	26,823
65 and over-----	54,392	11,098	43,294	54,668	7,314	47,355	38,748	47,355
All ages-----	55,828	25,084	30,744	40,772	14,330	26,442	24,623	26,442
Years on this farm:								
Under 3-----	52,379	30,869	21,510	26,821	14,277	12,544	13,848	12,544
3 to 6-----	51,406	29,036	22,370	39,139	20,070	19,069	15,876	19,069
7 to 11-----	53,881	27,344	26,537	41,759	21,010	20,749	20,800	20,749
12 to 16-----	58,020	28,503	29,517	39,178	16,772	22,406	23,700	22,406
17 to 21-----	54,647	18,521	36,126	40,629	9,105	31,523	29,990	31,523
22 to 31-----	60,774	17,732	43,043	46,107	12,257	33,850	37,444	33,850
32 and over-----	60,525	15,256	45,269	45,113	8,991	36,121	40,836	36,121
All periods-----	55,828	25,084	30,744	40,772	14,330	26,442	24,623	26,442
Tenure:								
Full owner-----	37,273	0	37,273	32,438	0	32,438	30,062	32,438
Part owner-----	70,705	33,196	37,508	53,780	22,080	31,700	29,443	31,700
Tenant-----	52,488	52,488	0	32,899	32,899	0	0	0
All tenures-----	55,828	25,084	30,744	40,772	14,330	26,442	24,623	26,442
Type of farm operated:								
Cash grain-----	74,903	45,446	29,457	59,057	29,925	29,133	23,293	29,133
Cotton-----	54,728	28,220	26,508	28,384	13,418	14,966	22,363	14,966
Tobacco-----	20,010	9,114	10,896	13,577	7,910	5,666	8,773	5,666
Dairy-----	35,467	10,956	24,511	29,662	9,642	20,021	19,133	20,021
Other livestock-----	67,456	27,820	39,639	49,738	14,141	35,596	31,088	35,596
Other-----	58,117	21,354	36,762	46,239	9,097	37,142	30,468	37,142
All types-----	55,828	25,084	30,744	40,772	14,330	26,442	24,623	26,442

1/ Value of land and buildings owned minus major real estate debt.

Table 7.--Commercial farm operators: Comparison of indebted and debt-free operators with respect to farm and off-farm income, 1960

Characteristics of operators and type of farm	Indebted operators				Debt-free operators			
	Gross farm ¹ /	Net farm ² /	Off- farm ³ /	Total net	Gross farm ¹ /	Net farm ² /	Off- farm ³ /	Total net
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Age:								
Under 35-----	11,876	3,287	1,340	4,628	7,908	2,593	1,315	3,908
35 to 44-----	13,670	3,499	1,719	5,218	9,332	2,755	1,566	4,321
45 to 54-----	12,707	3,112	2,068	5,180	8,307	2,818	1,539	4,357
55 to 64-----	11,232	2,975	1,464	4,439	7,956	2,979	1,391	4,371
65 and over-----	12,501	3,334	1,909	5,243	9,431	3,251	2,689	5,940
All ages-----	12,697	3,205	1,815	5,020	8,574	2,844	1,649	4,494
Years on this farm:								
Under 3-----	11,109	2,782	1,722	4,504	5,502	1,799	1,354	3,153
3 to 6-----	11,017	2,695	1,753	4,448	8,133	2,353	1,415	3,768
7 to 11-----	12,417	3,061	2,220	5,281	8,933	2,628	1,507	4,135
12 to 16-----	13,830	3,488	1,678	5,166	8,010	2,619	1,557	4,176
17 to 21-----	12,995	3,500	1,635	5,135	8,306	2,894	1,488	4,382
22 to 31-----	13,141	3,425	1,945	5,370	9,163	3,421	1,826	5,247
32 and over-----	14,980	3,729	1,658	5,387	10,060	3,535	2,191	5,726
All periods-----	12,697	3,205	1,815	5,020	8,574	2,844	1,649	4,493
Tenure:								
Full owner-----	11,489	3,167	2,195	5,361	7,999	2,942	2,072	5,014
Part owner-----	14,571	3,673	1,843	5,516	10,558	3,527	1,606	5,133
Tenant-----	8,230	2,227	1,131	3,358	5,025	1,739	871	2,610
All tenures-----	12,697	3,205	1,815	5,020	8,574	2,844	1,649	4,494
Type of farm operated:								
Cash grain-----	9,798	3,424	1,995	5,419	7,748	3,264	1,932	5,196
Cotton-----	10,432	2,396	1,233	3,629	6,310	2,290	1,102	3,392
Tobacco-----	3,972	1,527	814	2,342	3,241	1,634	634	2,268
Dairy-----	11,273	3,146	1,375	4,520	9,323	2,762	1,486	4,248
Other livestock-----	16,089	3,749	2,267	6,016	9,301	3,115	1,825	4,940
Other-----	16,996	3,394	2,153	5,547	12,622	3,302	2,287	5,589
All types-----	12,697	3,205	1,815	5,020	8,574	2,844	1,649	4,493

¹/ Operator's share of sales of farm products minus cash rent.

²/ Net cash income of operator from sales of farm products.

³/ Income of operator and family from off-farm sources.

Table 8.--Owner-operators of commercial farms: Average value of land and buildings, equity in land owned, and net cash and total income, 1960

Ratio of major real-estate debt to value of land and buildings owned by operators	Average debt-to-value ratio	Average value of land and buildings			Average operator's equity in land and buildings owned <u>1/</u>	Average net cash income <u>2/</u>	Average total net cash income <u>3/</u>
		Operated	Leased	Owned			
	<u>Percent</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
0-----	0	44,832	9,959	34,872	34,872	3,302	5,146
1 to 19 percent-----	9	77,272	17,982	59,290	53,874	3,823	6,068
20 to 49 percent-----	31	56,701	15,872	40,830	28,009	3,509	5,795
50 percent and over----	72	47,785	19,459	28,326	7,978	3,351	5,296

Per \$100 of operator's equity in land

	Percent	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
0-----	0	129	29	100	100	9	15
1 to 19 percent-----	9	143	33	110	100	7	11
20 to 49 percent-----	31	202	57	146	100	13	21
50 percent and over----	72	599	244	355	100	42	66

1/ Value of land and buildings owned minus major real-estate debt.

2/ Net cash income of operator from sales of farm products.

3/ Includes income of operator and family from off-farm sources.

Table 9.--All farm operators: Average value of land and buildings, equity, and net cash farm and total incomes, by ratio of total debt to net cash farm income, 1960

Ratio of total debt to net cash farm income	Average debt-to- income ratio	Average value of land and buildings			Average operator's equity in land and buildings owned <u>1/</u>	Average net cash income <u>2/</u>	Average total net cash income <u>3/</u>
		Operated	Leased	Owned			
	<u>Percent</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
0-----	0	31,265	9,445	21,820	21,820	1,873	4,053
Under 150 percent-----	62	39,735	19,984	19,571	18,678	3,905	5,318
150 to 749 percent-----	331	49,053	20,477	28,577	22,306	3,220	5,174
750 percent and over----	1,488	51,619	14,746	36,873	24,230	1,256	4,539
Indeterminate <u>4/</u> -----	---	46,038	22,142	23,895	18,971	-1,683	2,537

Per \$100 of operator's equity in land

	Percent	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
0-----	0	143	43	100	100	9	19
Under 150 percent-----	62	213	107	105	100	21	28
150 to 749 percent-----	331	220	92	128	100	14	23
750 percent and over----	1,488	213	61	152	100	5	19
Indeterminate <u>4/</u> -----	---	243	117	126	100	-9	13

1/ Value of land and buildings owned, minus major real-estate debt.

2/ Net cash income of operator from sales of farm products.

3/ Includes income of operator and family from off-farm sources.

4/ These operators had a net cash operating loss.

Table 10.--Farm operators: Average and total debt ratios for farmer owners and all farmers, 1960

Debt ratios	Average debt of operators			Total debt as percentage of--		
	Major real estate debt <u>1/</u>	Non-real-estate and related debts <u>2/</u>	Total debts	Gross cash farm income <u>3/</u>	Net cash farm income <u>4/</u>	Total net cash income <u>5/</u>
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Owner-operator:						
Ratio of major real estate debt to value of land and buildings owned:						
0-----	0	1,739	1,739	16	53	34
1 to 19 percent-----	5,416	3,769	9,185	59	240	151
20 to 49 percent-----	12,821	4,722	17,543	120	500	303
50 percent and over----	20,348	4,421	24,769	170	739	468
All operators:						
Ratio of total debt to net cash farm income:						
0-----	0	0	0	0	0	0
1 to 149 percent-----	893	1,542	2,435	24	62	45
150 to 749 percent-----	6,271	4,376	10,647	92	331	201
750 percent and over----	12,643	6,041	18,684	208	1,488	407
Indeterminate <u>6/</u> -----	4,924	4,021	8,945	144	---	374

1/ Debt secured primarily by farm real estate.

2/ Other debt of operator.

3/ Operator's share of sales of farm products.

4/ Net cash income of operator from sales of farm products.

5/ Includes income of operator and family from off-farm sources.

6/ These operators had a net cash operating loss.

Table 11.--Owner-operators of commercial farms: Percentage with specified debt-to-value ratios, by value of land and buildings owned, 1960

Ratio of major real-estate debt to value of land and buildings owned	Value of land and buildings owned			
	Under \$25,000	\$25,000 to \$99,999	\$100,000 and over	All values
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
0-----	63	49	47	56
1 to 19 percent-----	10	19	31	15
20 to 49 percent-----	16	23	18	19
50 percent and over-----	11	9	4	10
Total-----	100	100	100	100

Table 12.--Commercial farm operators: Percentages with specified ratios of total debt to net cash farm income, by economic class of farm, 1960

Ratio of debt to cash farm income, 1960	Economic class of farm operated			
	I and II	III and IV	V and VI	All
	Percent	Percent	Percent	Percent
0-----	25	31	48	36
1 to 149 percent-----	28	26	23	25
150 to 749 percent-----	30	29	16	24
750 percent and over-----	11	9	8	9
Indeterminate <u>1</u> /-----	6	5	5	6
Total-----	100	100	100	100

1/ These operators had a net cash operating loss in 1960.

Table 13.--Owner-operators of commercial farms: Amount of total debt and percentage distribution of operators with specified debt-to-value ratios, by specified property values, 1960

Ratio of major real-estate debt to value of land and buildings owned	Value of land and buildings owned			
	Under \$25,000	\$25,000 to \$99,999	\$100,000 and over	All values
	Million dollars	Million dollars	Million dollars	Million dollars
0-----	598	704	356	1,658
1 to 19 percent-----	244	912	1,180	2,336
20 to 49 percent-----	978	2,934	1,663	5,574
50 percent and over-----	1,339	1,961	796	4,097
Total-----	3,159	6,510	3,995	13,665
	Percent	Percent	Percent	Percent
0-----	19	11	9	12
1 to 19 percent-----	8	14	29	17
20 to 49 percent-----	31	45	42	41
50 percent and over-----	42	30	20	30
Total-----	100	100	100	100

Table 14.--Commercial farm operators: Amount of total debt and percentage distribution of operators with specified debt-to-income ratios, by economic class of farm operated, 1960

Ratio of total debt to net cash farm income of operator in 1960	Economic class of farm operated			
	I and II	III and IV	V and VI	All
	Million dollars	Million dollars	Million dollars	Million dollars
1 to 149 percent-----	734	703	156	1,593
150 to 749 percent-----	2,877	3,403	494	6,774
750 percent and over-----	2,384	2,003	687	5,074
Indeterminate <u>1</u> /-----	940	567	215	1,722
Total-----	6,936	6,676	1,552	15,164
	Percent	Percent	Percent	Percent
1 to 149 percent-----	11	11	10	11
150 to 749 percent-----	41	51	32	45
750 percent and over-----	34	30	44	33
Indeterminate <u>1</u> /-----	14	8	14	11
Total-----	100	100	100	100

1/ These operators had a net cash operating loss in 1960.

Table 15.--Commercial farm operators: Gross and net cash farm income, and cash operating expenses per \$100 value of land and buildings operated, and average acreage and value per acre of land operated, 1960

Grouping	Per \$100 value of land and buildings operated			Acres operated	
	Gross cash farm income <u>1</u> /	Cash operating expenses <u>2</u> /	Net cash farm income <u>3</u> /	Average number	Average value per acre
	Dollars	Dollars	Dollars	Number	Dollars
Economic class of farm:					
I-----	33	28	5	2,491	107
II-----	21	15	6	838	121
III-----	20	13	7	420	136
IV-----	17	11	6	282	125
V-----	15	9	6	174	118
VI-----	13	7	6	90	101
Acres in farm:					
1,000 and more-----	19	15	4	3,621	57
500 to 999-----	20	15	5	684	141
260 to 499-----	21	15	6	350	174
180 to 259-----	23	16	7	217	197
100 to 179-----	24	17	7	138	225
50 to 99-----	27	18	9	74	273
Under 50-----	44	31	13	23	605
Net cash farm income of operator:					
\$15,000 and over-----	37	26	11	2,783	97
\$7,500 to \$14,999-----	28	18	10	1,027	101
\$5,000 to \$7,499-----	23	15	8	609	122
\$3,000 to \$4,999-----	21	14	7	361	145
\$1,000 to \$2,999-----	18	12	6	235	134
0 to \$999-----	14	12	2	178	120
Net loss-----	14	18	-4	687	122

1/ Operator's share of sales minus cash rent.

2/ Excludes rent and all noncash expenses.

3/ Operator's net cash income from sales of farm products.